

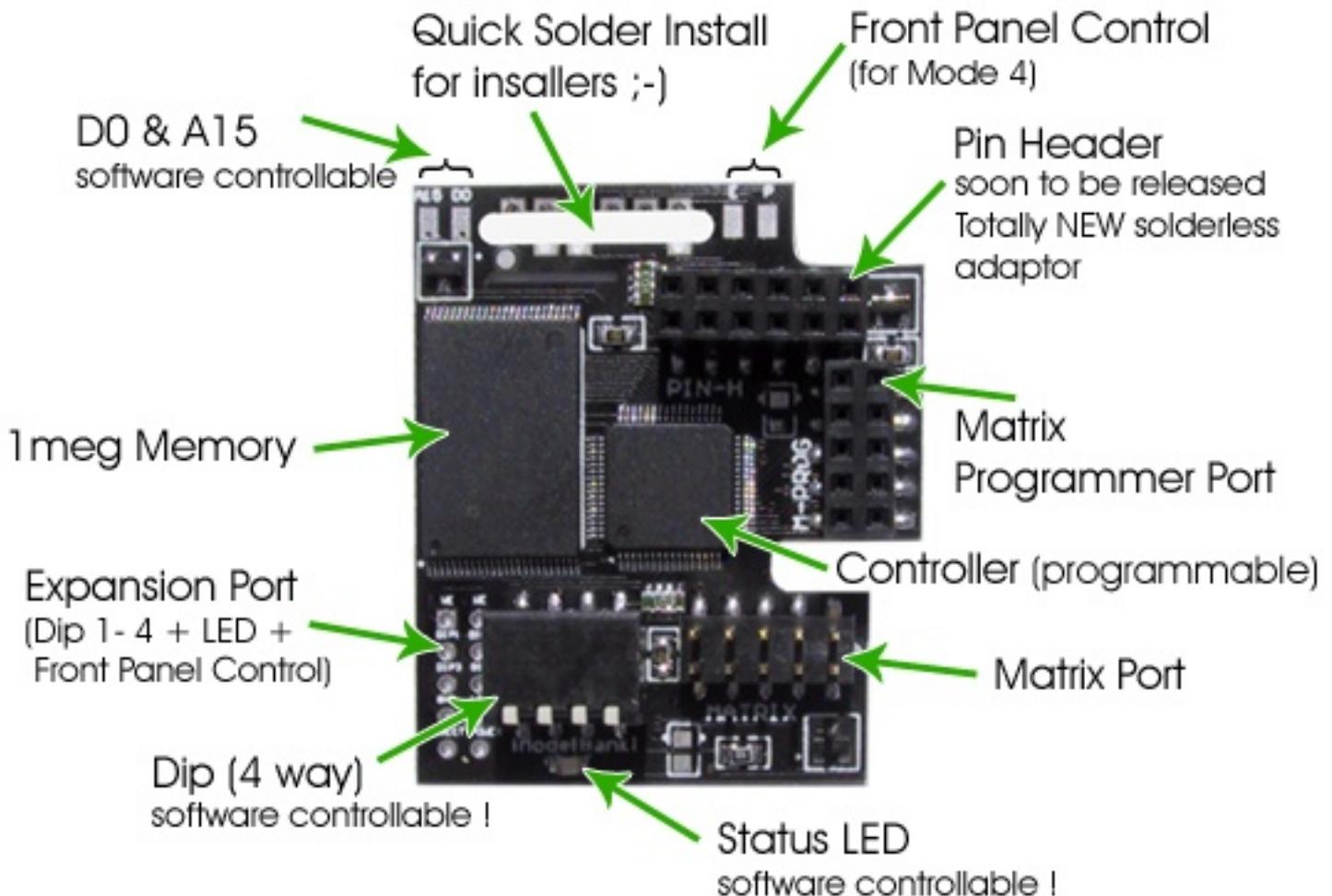


Chameleon User Manual

Dear valued customer, we, the Xodus-Team developers of the Chameleon, would like to thank you for purchasing our latest innovation for your console. We believe that we have the most advanced and yet simple to use development system. This Manual will describe briefly the operation and use of the Chameleon.

Please refer to the install guides for instructions on how to install your Chameleon.

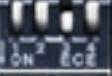
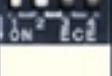
The Chameleon Overview



Selecting your mode of operation

Table 1a, shows the various modes of operation for the Chameleon. Depending on how you prefer to work, or how many different bios images you prefer to have access to at one time, the Chameleon has been designed to cater for the most diverse developers out there.

Table 1a

MODE		BANK			Description
DIP 1	DIP 2	DIP3	DIP4		
OFF	OFF	OFF	OFF		4 x 256k Chameleon will power up in bank 0
OFF	OFF	OFF	ON		4 x 256k Chameleon will power up in bank 1
OFF	OFF	ON	OFF		4 x 256k Chameleon will power up in bank 2
OFF	OFF	ON	ON		4 x 256k Chameleon will power up in bank 3
ON	OFF	OFF	OFF		2 x 512k Chameleon will power up in bank 1
ON	OFF	ON	OFF		2 x 512k Chameleon will power up in bank 2
ON	OFF	X	ON		Stealth Mode boot 1 st bank but 2 nd bank visible
OFF	ON	X	X		1 x 1024k Chameleon will use the whole flash
ON	ON	X	X		2 x 256k + 1 x 512k Front panel control (points P&E must be installed)
		POWER			Chameleon will power up in bank 1 (256k) writable
			EJECT		Chameleon will be disabled and on-board bios will boot
		POWER	EJECT		Chameleon will power up in bank 2 (256k) write protect

Mode 1 (4x256k)

This mode splits the 1024k flash space of the Chameleon into 4 equal parts of each 256k. These banks can hold four different bios images. By using Dip switches 3 and 4 (Bank) you can pre-select which bank should be your default boot bank used on power up, the rest of the banks can easily be used (booted) or even independently flashed by using our Software Control feature (described in detail later in this manual).

Mode 2 (2x512 + Stealth)

The flash space of the Chameleon is split into 2 equal parts of 512k each. Again you can pre-select your desired boot bank by setting the bank dip switches. A special case is entered into when Dip 4 is turned ON, this is Stealth Mode, here the on board controller of the Chameleon will boot from Bank 1 and then switch over to Bank 2 automatically. Thus the only bios that can be "seen" after boot is the one in Bank 2.

Mode 3 (1x1024)

One BIG bios file. ;)

Mode 4 (2x256 direct access & 1x512 soft access)

NOTE: Mode 4 will only function correctly if both points P&E are installed as shown in the installation manuals.

This mode is to us the most practical, it offers everything you need to develop and test your bios.

By powering on your console using the Power button (and keeping it pressed for at least 3 seconds) the Chameleon will boot using Bank 1 (Flashable).

By powering on your console using the Eject button (and keeping it pressed for at least 3 seconds) the Chameleon will be disabled and the console will boot from its onboard bios.

By powering up your console using both Power and Eject buttons (again keeping both of them pressed for at least 3 seconds) the Chameleon will boot using Bank 2 (Write protected).

Once booted Bank 1 (256k) as well as bank 3 (512k) can be flashed or swapped into by using the software control features of the Chameleon.

Software Control:

In an attempt to offer our customers the best in terms of comfort and control, we have implemented a control system that can be accessed through the LPC bus. This gives The Chameleon the ability to be controlled through software applications running on your console.

Not only can you swap into and flash which ever bank you please, but you can also implement simple debug routines which will illuminate the blue led as an extra feedback system. You also have control of the D0/A15 lines, thus enabling you to disable the Chameleon and boot using the on-board bios. We also took some precautions and implemented a specific command to completely detach the chameleon from the LPC bus, thus rendering it totally invisible.

To date most of the Chameleon's command set is utilized and brought out to a more user friendly environment through the brilliant work of the Evolution-X team in their latest release of the Evolution-X dashboard. There are still a few commands to be implemented, when this happens we will update this manual. For now here is a general listing of the "tags" used in the Evolution-X "ini" file.

```
ID_Chameleon_Mode_1
ID_Chameleon_Release_D0,ID_Full_Reboot
ID_Chameleon_Bank_0,ID_Full_Reboot
ID_Chameleon_Bank_1,ID_Full_Reboot
ID_Chameleon_Bank_2,ID_Full_Reboot
ID_Chameleon_Bank_3,ID_Full_Reboot
ID_Chameleon_Bank_0,ID_Flash_Bios
ID_Chameleon_Bank_1,ID_Flash_Bios
ID_Chameleon_Bank_2,ID_Flash_Bios
ID_Chameleon_Bank_3,ID_Flash_Bios
```

```
ID_Chameleon_Mode_2
ID_Chameleon_Release_D0,ID_Full_Reboot
ID_Chameleon_Bank_0,ID_Full_Reboot
ID_Chameleon_Bank_2,ID_Full_Reboot
ID_Chameleon_Bank_0,ID_Flash_Bios
ID_Chameleon_Bank_2,ID_Flash_Bios
ID_Chameleon_Mode_3
ID_Chameleon_Release_D0,ID_Full_Reboot
```

```
ID_Chameleon_Bank_0,ID_Flash_Bios
ID_Chameleon_Mode_4
ID_Chameleon_Release_D0,ID_Full_Reboot
ID_Chameleon_Bank_0,ID_Full_Reboot
ID_Chameleon_Bank_2,ID_Full_Reboot
ID_Chameleon_Bank_0,ID_Flash_Bios
ID_Chameleon_Bank_2,ID_Flash_Bios
```

In order to take full advantage of the Software Control features you need to use the latest version of EvolutionX Dashboard and append some lines to your evox.ini file:

(*here is a working example*)

```
[Menu]
```

```
Section "Root"
```

```
{
```

```
    Section "System Utils"
```

```
    {
```

```
        Item "Settings",ID_Settings
        Item "Flash BIOS",ID_Flash_Bios
        Item "Backup",ID_Backup
```

```
    Section "Chameleon Mode 1",ID_Chameleon_Mode_1
```

```
    {
```

```
        Line "Mode 1 (4x256k)"
        Item "Switch To TSOP (Disable Chameleon)",ID_Chameleon_Release_D0,ID_Full_Reboot
        Item "Switch To Bank 0",ID_Chameleon_Bank_0,ID_Full_Reboot
        Item "Switch To Bank 1",ID_Chameleon_Bank_1,ID_Full_Reboot
        Item "Switch To Bank 2",ID_Chameleon_Bank_2,ID_Full_Reboot
        Item "Switch To Bank 3",ID_Chameleon_Bank_3,ID_Full_Reboot
        Line "=-*_*=-"
        Item "Flash Bank 0",ID_Chameleon_Bank_0,ID_Flash_Bios
        Item "Flash Bank 1",ID_Chameleon_Bank_1,ID_Flash_Bios
        Item "Flash Bank 2",ID_Chameleon_Bank_2,ID_Flash_Bios
        Item "Flash Bank 3",ID_Chameleon_Bank_3,ID_Flash_Bios
```

```
    }
```

```
    Section "Chameleon Mode 2",ID_Chameleon_Mode_2
```

```
    {
```

```
        Line "Mode 2 (2x512k)"
        Item "Switch To TSOP (Disable Chameleon)",ID_Chameleon_Release_D0,ID_Full_Reboot
        Item "Switch To Bank 0,1",ID_Chameleon_Bank_0,ID_Full_Reboot
        Item "Switch To Bank 2,3",ID_Chameleon_Bank_2,ID_Full_Reboot
        Line "=-*_*=-"
        Item "Flash Bank 0,1",ID_Chameleon_Bank_0,ID_Flash_Bios
        Item "Flash Bank 2,3",ID_Chameleon_Bank_2,ID_Flash_Bios
```

```
    }
```

```
    Section "Chameleon Mode 3",ID_Chameleon_Mode_3
```

```
    {
```

```
        Line "Mode 3 (1x1024k)"
        Item "Switch To TSOP (Disable Chameleon)",ID_Chameleon_Release_D0,ID_Full_Reboot
```

```

Line "=-*-*=-"
Item "Flash Bank 0,1,2,3",ID_Chameleon_Bank_0,ID_Flash_Bios
}

Section "Chameleon Mode 4",ID_Chameleon_Mode_4

{

Line "Mode 4 (2x256k + 1x512k)"
Item "Switch To TSOP (Disable Chameleon)",ID_Chameleon_Release_D0,ID_Full_Reboot
Item "Switch To Bank 0",ID_Chameleon_Bank_0,ID_Full_Reboot
Item "Switch To Bank 2",ID_Chameleon_Bank_2,ID_Full_Reboot
Line "=-*-*=-"
Item "Flash Bank 0",ID_Chameleon_Bank_0,ID_Flash_Bios
Item "Flash Bank 2",ID_Chameleon_Bank_2,ID_Flash_Bios

}

}
}

```

How to update your Chameleons BIOS using a CD-RW.

The Chameleon has a unique feature that allows the user to easily update their bios using a CD. Due to the nature of the Xbox Linux bios and its frequent upgrades, we have implemented a state of the art procedure to auto update your bios in a few easy steps.

The simple procedure involves downloading the new image file you intent to use, ensuring it is either 256k or 512k in size, renaming it LINUXBIO.BIN , and burning it onto a CD-RW. Then simply insert your new CD when prompted for the Linux CD. The custom made bios will recognize the file name and instead of booting Linux will proceed to flash Bank 1 or Bank 1+2 if 512k.

NOTE: For safety reasons the updated bios will only be flashed on the First (256k) or First and Second (512k) banks , regardless of which bank you boot from. Flash updates through onboard Cromwell Bios will only be permitted in MODE 1.

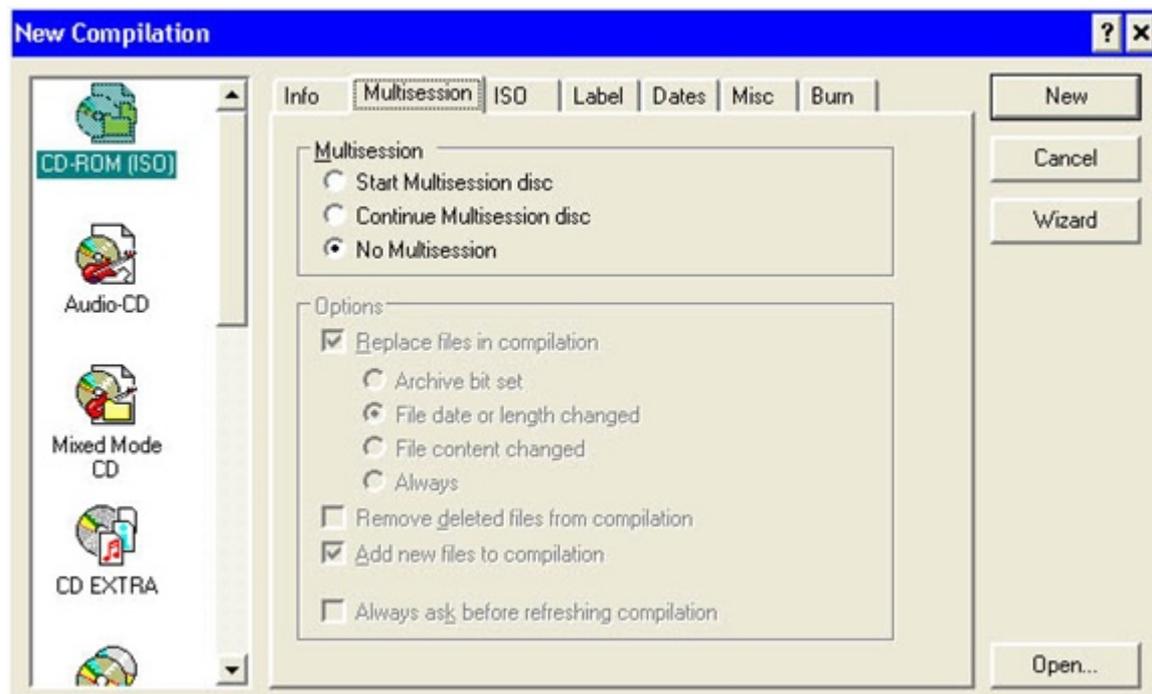
WE STRONGLY RECOMMEND YOU MAINTAIN AT LEAST ONE COPY OF THE ORIGINAL BIOS FILE ON YOUR CHIP AT ALL TIMES.

Step 1: Configure your CD Recorder Software and burn a Bios CD

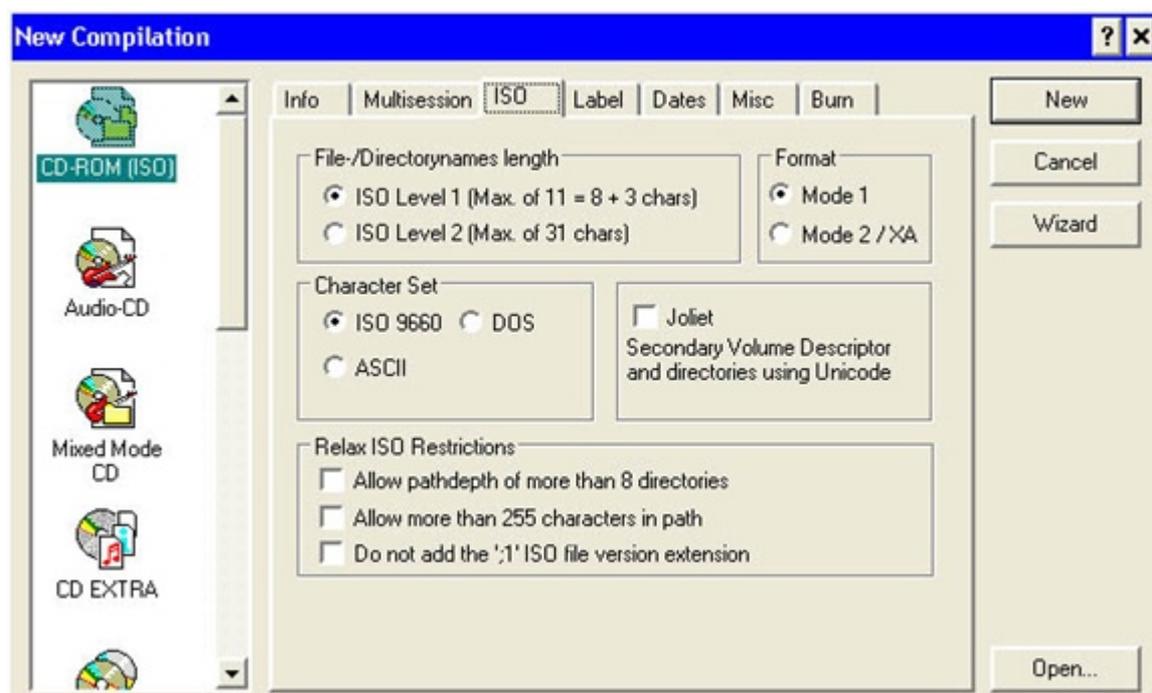
In this example we are demonstrating the menus of NERO Burning ROM. You can see the figure showing a New compilation of a CD-RW.

Please do not use the wizard.

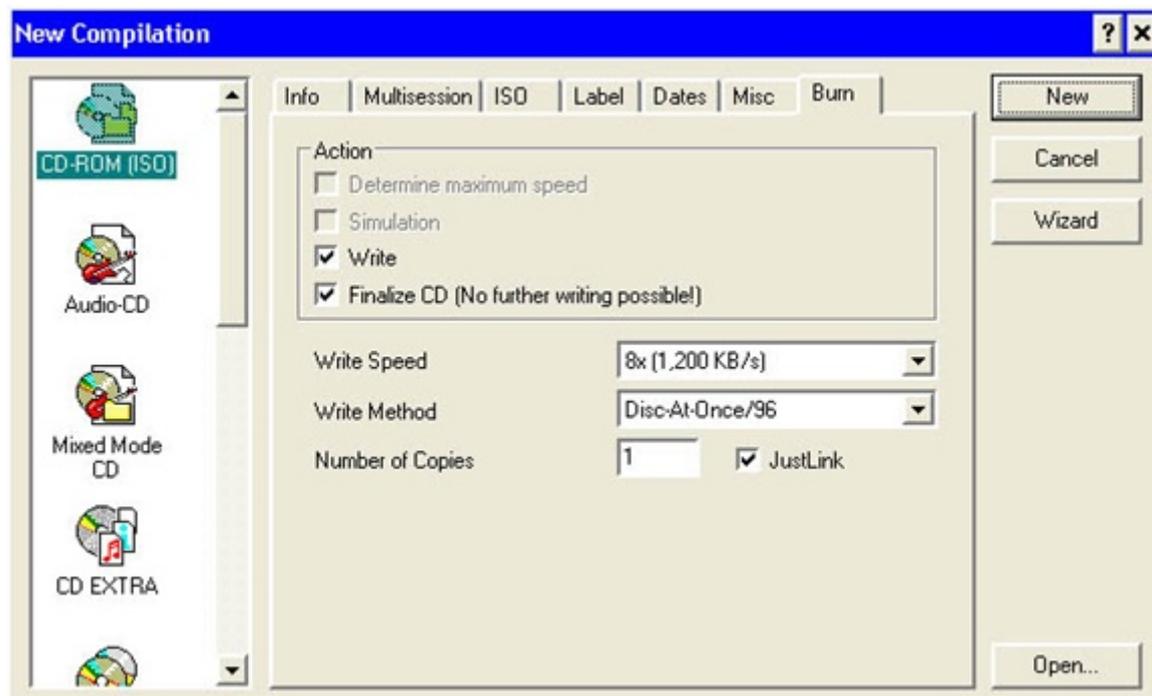
Using ISO format you select No Multisession



Go to the ISO tab and select:
ISO/Level 1 (Max of 11 = 8 + 3 chars)
Format Mode 1
ISO 9660
Deselect Joliet

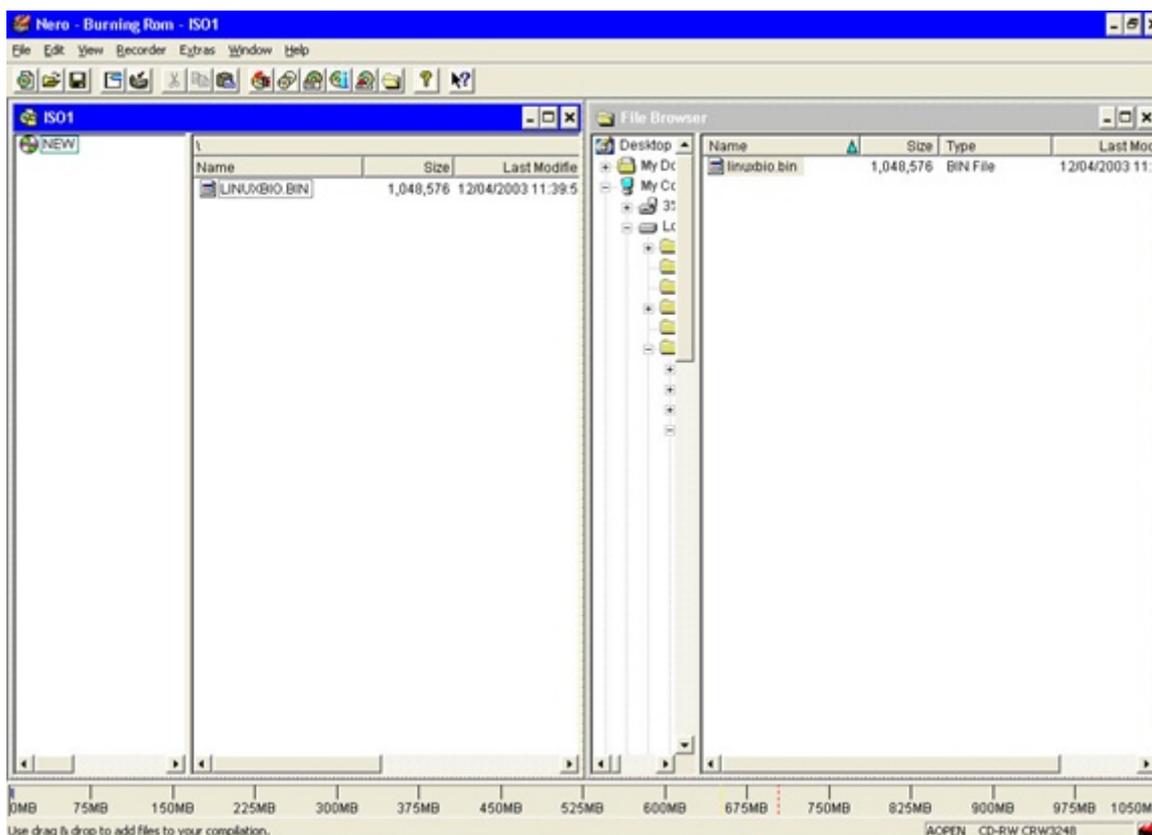


Go to the Burn tab and select to finalize the cd and Disc-At-Once and you are ready to go



By Selecting the Burn button you will be taken to the ISO1 window. Here you must drag and drop the updated bios image file renamed to LINUXBIO.BIN

The file LINUXBIO.BIN can either 256k or 512k.



After selecting the file click "Burn CD" to start.

(It is recommended you use a CD-RW for this task due to some DVD drives not reading CD-R's. In some cases it might be necessary to add a file called DUMMY.BIN of size 50MB+ in the ISO1 tab to ensure your console can read the CD)

Step 2: "Using your newly made update CD"

This should only take a few seconds to complete.

Set your Chameleon to Mode 1 (default shipping mode) and select the bank with the Chameleon-Cromwell bios on it. (all four banks are pre programmed from factory with the Chameleon -Cromwell Bios)

Power on your console.

The Chameleon Cromwell Linux Screen should appear and the DVD tray will automatically open.

PLEASE WAIT for the Cromwell Bios to complete booting and ask for a CD.

When prompted by the on screen flashing text insert the CD and close the tray. The customized Cromwell bios will acknowledge the LINUXBIO.BIN file on your CD. It will automatically start the update procedure and indicate this through the onscreen text. The whole procedure only takes a few seconds, PLEASE DO NOT DISTURB YOUR CONSOLE IN ANY WAY DURING THE UPDATE PROCESSES, once the flashing has been done your console will turn off automatically.

Note: In certain situations, such as when using an RF adaptor, the screen might not appear at all, the update procedure can usually still be carried out. Simply power on the unit and wait for a minimum of 60 seconds, keep an eye on the flashing blue LED of the Chameleon, (if it stops flashing then power off wait for 10 seconds and try again) ensure it remains flashing and insert your CD, wait for a minimum of 60 seconds again, by which time your console should have turned off automatically, if not then double check your CD has been burned properly.

CREDITS

It is with great respect that we the Xodus-Team, would like to thank whole heartedly the following members of "the scene" as well as the general public involved in "the scene" for their continual positive feedback, and general assistance.

Team EvoX (www.valholl.org)
The Xbox-Linux Team (xbox-linux.sf.net)
Xantium (www.xbox-scene.com)
iretch (www.xboxhacker.net)
Andy green (www.warmcat.com/milksop/)
XB0XMOD (xcover.xodus-chip.com)
Zeus2k (www.maxconsole.com)

As always a special thank-you goes out to you, our customer.

Wishing you many hours of fun

Yours,

Xodus-Team

For additional support please do not hesitate to use our online support system
at www.xodus-chip.com